



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit
PO039779	THY001-VC	1	1	Net 30	M6061T6R1.125	6061 Round Bar 1.125 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft				12	5/9/2018	12		S068498	Stock	5/4/2018	\$ 3.28 / ft
		2			M6061T6A4.000W.250	6061T6 Angle 4.00 X 4.00 X .250 : MATERIAL: 6061-T6/T6510/T6511 ALUMINUM ANGLE AS PER AMS-QQ-A-200/8 receive ft				20		20		S068499	Stock	5/4/2018	\$ 6.04 / ft
		3			M6061T6B0.500X04.500	6061T6 Bar 0.500 X 4.500 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				24		24		S068500	Stock	5/4/2018	\$ 6.95 / ft
		4			M6061T6B0.750X01.000	6061-T6 Bar .750 X 1.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft						24		S068501	Stock	5/4/2018	\$ 2.49 / ft
		5			M6061T6B0.750X00.125	6061-T6 Bar .750 X .125 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				40		80		S068502	Stock	5/4/2018	\$ 3.25 / ft
		6			M304R1.750	304 Round Bar 1.750 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft					12		12		S068503	Stock	5/4/2018
Total:										132		172					

Plex 5/4/2018 10:03 AM Dart.Dubois.Pascal



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039779**

Supplier: THY001-VC
Thyssenkrupp Materials CA Ltd
O/A VPK Metal- c/o T27540
PO Box 4275, Postal "A"
Toronto
ON
M5W 5V8 Canada
Phone: 905 669 9444
Fax: 905 738 9033

PO No: PO039779

PO Date: 5/2/18

Due Date: 5/9/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
Phone: clavoie@dartaero.com

E-MAILED
MAY 02 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments: quote no. 1203098041

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M6061T6R1.125		6061 Round Bar 1.125 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	5/9/18	12 ft	0 ft	12 ft	\$3.28/ft	\$39.36
2	M6061T6A4.000W.250		6061T6 Angle 4.00 X 4.00 X .250 : MATERIAL: 6061-T6/T6510/T6511 ALUMINUM ANGLE AS PER AMS-QQ-A-200/8 receive ft	Firmed	5/9/18	20 ft	0 ft	20 ft	\$6.04/ft	\$120.80
3	M6061T6B0.500X04.500		6061T6 Bar 0.500 X 4.500 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	5/9/18	24 ft	0 ft	24 ft	\$6.95/ft	\$166.80

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MAY 04 2018

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9-89

MAY 04 2018

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	M6061T6B0.750X01.000		6061-T6 Bar .750 X 1.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	5/9/18	24 ft	0 ft 24'	24 ft	\$2.49/ft	\$59.76
5	M6061T6B0.750X00.125		6061-T6 Bar .750 X .125 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	5/9/18	40 ft	0 ft 80'	40 ft	\$3.25/ft	\$130.00
6	M304R1.750		304 Round Bar 1.750 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	5/9/18	12 ft	0 ft 12'	12 ft	\$22.15/ft	\$265.80
Grand Total:										\$782.52

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 5/2/18 1:50 PM dart.lavoie.chantal

DELIVERY NOTE

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7



DATE: 05/04/2018
DOC. NO: 2405940913*
BOL. NO: 2405940913
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

MTA

**MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.**

ATTN: CHANTAL/LINDA

**** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION	NET QTY1 / QTY2	PACKAG
0010	SSRD11496	1	1008569993
	T-304L Stainless Steel Round		PC
	1.7500 " X 144 Mill Length		
	Actual Chemistry/Act. Physical		103 lb
	Standard Packaging		
TAGNUM	QTY	UOMVEND	VENDPO HLOT PCS --- COM
2001350466	1	PC FIDELITY	0000283688 CH-4346 1
Total Gross Weight			105.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

*thyssenkrupp Matériaux NA certifie que le matériel décrit ci-dessus est conforme aux dessins ou spécifications exigés sur le bon de commande et qui sont en vigueur à la date ou la commande a été acceptée./ thyssenkrupp Materials NA certifies that the material described above is in accordance with the drawings or specifications called for on said order that are current on the date order was accepted.

*Nous certifions que le document reproduit ici est une copie conforme du rapport fourni par le fournisseur du matériel où les données résultent de l'analyse faite par un laboratoire qualifié/ We certify that the document reproduced here is true to the report provided by the equipment supplier where the data are the result of analysis by a qualified laboratory.

David Noordine - Director of Quality Assurance



thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6

DELIVERY NOTE



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 05/04/2018
DOC. NO: 2405940914*
BOL. NO: 2405940914
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

MTR

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.

ATTN: CHANTAL/LINDA

** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT **

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION	NET QTY1 / QTY2	PACKAG
0010	ALREC00778	4	1008569740
	6061 T6511 Aluminum Extruded Rectangular	PC	
	0.12500 (+-.007) X 0.7500 (+-.010) X 240 Mill Length	10	
	Nominal Chemistry/Act Physical	lb	
	Standard Packaging		
TAGNUM	QTY	UOMVEND	VENDPO
2001350428	4	PC CAN ART A	0000286896
ROHS COMPLIANT;ASTM B 221 2014			

Total Gross Weight 12.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

*thyssenkrupp Matériaux NA certifie que le matériel décrit ci-dessus est conforme aux dessins ou spécifications exigés sur le bon de commande et qui sont en vigueur à la date ou la commande a été acceptée./ thyssenkrupp Materials NA certifies that the material described above is in accordance with the drawings or specifications called for on said order that are current on the date order was accepted.

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David Noordine - Director of Quality Assurance

thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6

DELIVERY NOTE

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 05/04/2018
DOC. NO: 2405940915*
BOL. NO: 2405940915
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

MTR

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
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TO SHIPPING.

ATTN: CHANTAL/LINDA

** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT **

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION	NET QTY1 / QTY2	PACKAG
0010	ALREC00857	2	1008569995
	6061 T6511 Aluminum Extruded Rectangular	PC	
	0.75000 (+-.010) X 1.0000 (+-.012) X 144 Mill Length	22	
	Nominal Chemistry/Act Physical	lb	
	Standard Packaging		
TAGNUM	QTY	UOMVEND	VENDPO
2001350467	2	PC SERVICE C	5400392539
ROHS COMPLIANT;ASTM B 221 2014			



Total Gross Weight 24.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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DELIVERY NOTE

thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

MTR

DATE: 05/04/2018
DOC. NO: 2405940912*
BOL. NO: 2405940912
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

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ATTN: CHANTAL/LINDA

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** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION	NET QTY1 / QTY2	PACKAG
0010	ALREC00548		1008569991
	6061 T6511 Aluminum Extruded Rectangular	2 PC	
	0.50000 (+-.009) X 4.5000 (+-.034) X 144 Mill Length	63	
	Nominal Chemistry/Act Physical	lb	
	Standard Packaging		
TAGNUM	QTY	UOMVEND	VENDPO
2001350465	2	PC	SERVICE C
ROHS COMPLIANT;ASTM B 221 2014			5400379605
			201721131
			PCS --- COM
			2

Total Gross Weight

65.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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David Noordine - Director of Quality Assurance



thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6

DELIVERY NOTE



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 05/04/2018
DOC. NO: 2405940911*
BOL. NO: 2405940911
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

MTR

**MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
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TO SHIPPING.**

ATTN: CHANTAL/LINDA

**** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION	NET QTY1 / QTY2	PACKAG
0010	ALANG39172	1	1008569735
	6061 T6511 Aluminum Angle	PC	
	Extruded Canadian Standard	47	
	4.0000 X 4.0000 X 0.25000 X 240.0000 " Mill Length 240 IN	lb	
	Nominal Chemistry/Act Physical		
	Standard Packaging		
TAGNUM	QTY	UOMVEND	VENDPO
2001350427	1	PC EXTRUDEX	5400392708
		HLOT	39113
		PCS	---
		COM	
		1	

Total Gross Weight 61.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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David Noordine - Director of Quality Assurance

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thyssenkrupp Materials NA



thyssenkrupp

thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6

DELIVERY NOTE



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

MTR

DATE: 05/04/2018
DOC. NO: 2405940910*
BOL. NO: 2405940910
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

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ATTN: CHANTAL/LINDA

**** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION	NET QTY1 / QTY2	PACKAG
0010	ALRD00329		1008569989
	6061 T6511 Aluminum Extruded Round	1 PC	
	1.1250 (+-.006) X 144 " Mill Length	14	
	Nominal Chemistry/Act Physical	lb	
	Standard Packaging		
TAGNUM	QTY	UOMVEND	VENDPO
2001350463	1	PC	
ROHS COMPLIANT;ASTM B 221 2014			

HLOT
201706499

Total Gross Weight 28.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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David Noordine - Director of Quality Assurance

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 A4 0004 .250
 DATE: MAY 04 2018

PO / BATCH NO.: 039729/3068499

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 20'
 QUANTITY INSPECTED: 20'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .250
 THICKNESS RECEIVED: .250
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	AMS QQA 200/8
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	Heat Lot # 39113
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u> DATE: <u>9-89 MAY 04 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL 6061-T6 PER AMS-QQ-A-200/8
MINIMUM ANGLE

PART NUMBER: M6061T6A

WHERE HHH = HEIGHT
WWW = THICKNESS

HEIGHT THICKNESS

E.G. 0.75" X 0.75" X 0.125" = M6061T6A750XW125

08.03.17

B	PART NUMBER CALL OUT REWRITING	AJS	08.03.06
A	NEW ISSUE	MB	08.02.14
REV	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED	UK		
MFG. APPR	UK		
APPROVED	UK		
DE APPR	UK		
DATE	08.03.06		
DART AEROSPACE LTD HAWKESBURY, ONTARIO CANADA			
DRAWING NO M6061T6A			
TITLE 6061-T6 ANGLE			
REV B SHEET 1 OF 1			
SCALE NTS			
COPYRIGHT © 2008 BY DART AEROSPACE LTD			



TEL: (416) 745-4444 FAX: (416) 745-0925 1-800-668-7210
411 CHRISLEA ROAD, WOODBRIDGE, ONTARIO, CANADA L4L 8N4

<http://www.extrudex.com>

MILL TEST

BILL TO: THYSSENKRUPP MATERIALS, NA
SHIP TO: THYSSENKRUPP MATERIALS, NA
SO DESCRIPTION: 4" X .250" RF AN
CERT CODE: 9
CUSTOMER PO: 5400392708-C1A
CUSTOMER PART NUMBER: ALANG39172
DIE NUMBER: S 22448
DATE OF SHIPMENT: Apr/09/2018
SALESMAN: PETER BASHIMAKOV
EXTRUDEX ORDER NO.: 216067 - 4
MANIFEST NO.: 388927
MADE IN CANADA
CERTIFICATION: ASTM B221-14 - AMS QQA 200/8

Mechanical Properties

Lot: A.11 Alloy: 6061
Test Date: Jan/18/2018
Ultimate Tensile Strength (KSI): 42.80
Yield Strength (KSI): 40.50
Percent Elongation: 16.20
Hardness Rockwell F: 86.5, 86.8, 87.2
Conductivity:

Chemical Composition

Cast Number	Lot	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	B	Zr	Bi	Pb	Sb	Sr	Co	Al	Other
39113	A.11	6061	0.575	0.237	0.199	0.0791	0.832	0.0653	0	0.0174	0.0192	0	0	0	0	0	0	0	0	0	0	0

We certify that the following extrusions have been quality inspected/tested and conforms to required dimensional and temper specifications.

T. Mohabir

Tulsi Ram Mohabir
Quality Control Manager

1 - CUSTOMER COPY

From: TK Materials CA, Ltd.

Cust. DART AEROSPACE LTD

CstAr

Wgt.: 47 LB

Del.: 2405940911

CstOr 39779

Date 05/03/2018

Tomas Sanchez

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6B0.500X04.500
 DATE: MAY 04 2018

PO / BATCH NO.: 039779/5068500

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 24'
 QUANTITY INSPECTED: 24'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500
 THICKNESS RECEIVED: 0.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	AMS-QQA-200/8
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	Heat Lot # 201721131
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u> DATE: <u>9-89 MAY 04 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B221 OR ASTM B221

PART NUMBER: M6061T6B | T.TTT | X | WWW.WWW |
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WWW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
2009-08-03
MAD

B	REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (Zn D7-1)	CP	09.07.13
A	NEW ISSUE	DS	01.08.08
REV	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	DS		
CHECKED	DS		
MFG. APPR.	DS		
APPROVED	DS		
DE APPR.	DS		
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M6061T6B		REV. B	
TITLE 6061-T6 BAR		SHEET 1 OF 1	
SCALE NTS		NTS	
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Can Do.

5850 Quality Way
Prince George, VA 23875

Service Center Metals

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS



DE NUMBER

RB0456

DATE OF SHIPMENT

1/10/2018

CERTIFICATION

ASTM-B221-14 StencilCont

ALLOY / TEMPER

6061-T6511

SALESPERSON

D. Schroeder (Canada)

SPECIFICATION

AMS-QQA-200/8 Rev-A

SPECIFICATION

RoHS-2011/65/EU Compliant

BILL TO
ThyssenKrupp Materials NA
SHIP TO
ThyssenKrupp Materials NA-Concord, ON

CUSTOMER PO

5400379605

CUSTOMER PART NUMBER

ALREC00548

DESCRIPTION

SCRB .500 x 4.500

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

SCM is ISO 9001-2015 certified

This product is RoHS-2, REACH, and DPAAS compliant.

Mechanical Properties

Tests Lot No.

2 2017221131

Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
1/7/18	min 41.20 max 41.30	min 36.20 max 36.90	min 23.30 max 24.40

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Each	Total	Others	Melt Source:
002J171116B	2017221131	6061	0.62	0.25	0.19	0.07	0.86	0.07	0.03	0.02	97.88	0.05	0.15	United States of America	
002J171117B	2017221131	6061	0.62	0.27	0.20	0.06	0.86	0.07	0.04	0.03	97.86	0.05	0.15	United States of America	

SCM products are melted and extruded in the USA

Calvin J. Wiggins, Director of Quality & Technical Services

Rev 7/2017

Print Date: 1/10/2018

From: TK Materials CA, Ltd.

Cust. DART AEROSPACE LTD

CstAr

Wgt.: 63 LB

Del.: 2405940912

CstOr 39779

Date 05/03/2018

Tomas Sanchez

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6B0.750x01.000

PO / BATCH NO.: 039779/5068501

DATE: MAY 04 2018

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: 0.750

QUANTITY RECEIVED: 24'

THICKNESS RECEIVED: 0.750

QUANTITY INSPECTED: 24'

SHEET SIZE ORDERED: N/A

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(X) N	QQ-A-200/8
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat Lot # 201805575
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 MAY 04 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: ~~QQ-A-225/B OR AMS-QQ-A-225/B~~ OR AMS-QQ-A-225/B (OR AMS 4117/4128/4115/4116)
~~OR QQ-A-200/B OR AMS-QQ-A-200/B~~ OR AMS-QQ-A-200/B (OR AMS 4160)
~~OR ASTM B221 OR ASTM B221~~

PART NUMBER: M6061T6B | T.TTT | X | WWW.WWW |
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WWW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
R 2009-09-03
MD

B	REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZN D7-1)	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	AS		
CHECKED	AS		
MFG APPR	M6061T6B		
APPROVED			
DE APPR			
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. REV B			
M6061T6B SHEET 1 OF 1			
TITLE SCALE			
6061-T6 BAR NTS			
DATE 09.07.13			
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Service Center Metals

5850 Quality Way
Prince George, VA 23875

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS



OUR ORDER NUMBER	ITEM
945842	9

Can Do.

BILL TO

Thyssenkrupp Materials NA

SHIP TO

Thyssenkrupp Materials NA-Concord, ON

Quantity Certified 2,288 lbs 216 pcs

MANIFEST NUMBER

362132

CUSTOMER PO

5400392539

CUSTOMER PART NUMBER

ALREC00857

DE NUMBER

RB0111

ALLOY/TEMPER

6061-T6511

DESCRIPTION

SCRB-750x1.000

DATE OF SHIPMENT

3/26/2018

SALES PERSON

D. Schroeder (Canada)

CERTIFICATION

ASTM-B221-14 StencilCont

SPECIFICATION

AMS-QQA-200/8 Rev-A obsolete

SPECIFICATION

RoHS 2011/65/EU Compliant

We hereby certify that the material covered by this report has been inspected in accordance with the most recent specification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

SCM is ISO 9001-2015 certified

This product is RoHS-2, REACH, and DFARS compliant

Mechanical Properties

Tests Lot No.

8 201805575

Test Date

3/22/18

Ultimate Tensile Strength (KSI)

min 47.50 max 51.20

Yield Strength (KSI)

min 44.30 max 48.20

Percent Elongation

min 16.10 max 20.00

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	II	Al	Others	Each	Total	Melt Source:
001J171104A	201805575	6061	0.74	0.38	0.32	0.11	0.90	0.11	0.07	0.03	97.34	0.05	0.15		United States of America

SCM products are melted and extruded in the USA

Calvin J. Wiggins, Director of Quality & Technical Services

Rev 3/14/2018

Print Date: 3/26/2018

From: TK Materials CA, Ltd.

Cust. DART AEROSPACE LTD

CstAr

Wgt.: 22 LB

Del.: 2405940915

CstOr 39779

Date 05/03/2018

Tomas Sanchez

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 B0.750 x 0.125
 DATE: MAY 04 2018

PO / BATCH NO.: 039779/5068502

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 30
 QUANTITY INSPECTED: 30
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.125
 THICKNESS RECEIVED: 0.125
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	<u>Aston B221</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	<u>Heat # Lot # 3B6959</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>11 MAY 04 2018</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B21

PART NUMBER: M6061T6B | T.TTT | X | WW.WWW | THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
R 2009-09-03
MD

B	REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZN D7-1)	CP	09 07 13
A	NEW ISSUE	DS	01 08 08
REV	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	MD		
CHECKED	MD		
MFG. APPR.	M6061T6B		
APPROVED	MD		
DE APPR.	MD		
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV B	SHEET 1 OF 1
TITLE		SCALE	NTS
6061-T6 BAR			
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PO/Rel

BL PEC-000000-000

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by: _____ Pg 1/1

PART NO.

Attn:

CAN ART

ALUMINUM EXTRUSION L.P.

Material Test Report

Manifest: 331639

Ship To: ThyssenKrupp Materials NA
2821 Langstaff Road
Concord, ON L4K 5C6

Ticket:
5565436

Our Order: 440234 - 1

Cust P.O.: 286896

Die: ES05485

Part: 05485-000-240

Alloy Temper: 6061 T6511

Description: .125 x .750

Print Date: 10/23/17

Chemical Composition Range

6061	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	OtherEach	OtherTotal
Min	0.40		0.15		0.8	0.04				
Max	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.15

Mechanical Properties

Strength ksi

Sample ID	Cast #	Lot #	Test Date	Ultimate Tensile	Yield 2% offset	Elongation 2" gage length
428886	3B6959	A11	10/22/17	43.21	40.14	9.2

Applicable Specifications: ASTMB221-14 AMS-QQ-A200/8A

Country of Origin: 85 Parkshore Drive, Brampton, Ontario CANADA L6T 5M1

Can Art Aluminum Extrusion Inc. certifies that materials shipped under this order have been inspected and tested in accordance with Aluminum Association and agreed upon customer specifications. Can Art assumes no liability for additional costs which may be incurred during the customer's manufacture and sale of its products, and is subject only to the replacement of any materials not within agreed upon specifications provided written notification is received by Can Art within 30 days from the date of shipment.


Evan Eng, Quality Assurance Manager

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304R1.750
 DATE: MAY 04 2018

PO / BATCH NO.: 039779/506853

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.750
 THICKNESS RECEIVED: 1.750
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	<u>Astm A276</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	<u>Heatlot# CH-4346</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>04 MAY 04 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS ROUND BAR
(NOTE: AISI 303 NOT ACCEPTABLE)

SPECIFICATION: ASTM A276
PART NUMBER: M304R0.750

WHERE "D.DDD" = DIAMETER IN INCHES
EG. 0.75" ROUND BAR = M304R0.750

RELEASED
08/28/75

B	REFORMAT DWG. ADD SPECS (ZN D6-1), REF PAR 08-020A	CP	08.07.15
A	NEW ISSUE	AJS	08.03.03
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	97		
CHECKED	97		
MFG. APPR.	M		
APPROVED	M		
DE APPR.	M		
DATE	09.07.15		
DART AEROSPACE LTD		HAWKESBURY, ONTARIO, CANADA	
DRAWING NO.		REV. B	
M304R		SHEET 1 OF 1	
TITLE		SCALE	
304/316 ROUND BAR		NTS	
COPYRIGHT © 2008 BY DART AEROSPACE LTD			
THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED FOR THE PURPOSES SPECIFIED ONLY. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM DART AEROSPACE LTD.			

PO/Rel

BL PEC-000000-000

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Pg 1/1

PART NO.

Attn:



CHANDAN STEEL LIMITED
(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2008 CERTIFICATE No. 04 100 211232

ADM. OFFICE: 104, PUNE BHAWAN, N. S. PATIL MARG, MUMBAI 400 007, INDIA

Tel.: 91-22- 66290600. Fax: 91-22-66290633/34

Website : www.chandansteel.net

Email : cs@chandansteel.net

L/c. No.:

L/c. Date:

WORKS: Plot No. 35, G. I. D. C., Umbergaon

Dist Valsad, Gujarat - 396 171.

Tel.: 91-260- 508 9999 Fax: 91-260 308 9872

E-mail : exports@chandansteel.net

F824 QC 09A / 02 / 10.12.2012

MILL TEST / INSPECTION CERTIFICATE 3.1 ACCORDING TO EN 10204 : 2005

FIDELITY PAC METALS LTD. 1303 NORTH SERVICE ROAD EAST, UNIT #1 OAKVILLE, ON L6H 1A7, CANADA						Test Certificate No. : EXP/00322 - 19/2016-2017 Date of Issue : 04.07.2016 P. O. No. : P004712 SC_No. & Date : 15-16/00924, Dt. 13.04.2016 Invoice No. & Date : EXP/00322/2016-17 Dt.04.07.2016					
PRODUCT DESCRIPTION STAINLESS STEEL ROUND BARS						LENGTH		Net Wt.			
						Ordered 12' - 12'6"	Actual 12' - 12'6"	1118 LBS.			
Heat No. CH-4346	Grade AISI/DIN 304/304L 1.4301/1.4307 UNS#S30400/S30403	Size mm/inches 1-3/4"	Tolerance h9	Process Route Electric Melting, A.O.D. Refining, Continuous Casting.							
CHEMICAL COMPOSITION (Weight %)											
	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Co	N
Min.	-	-	-	-	-	18.00	-	8.00	-	-	-
Max.	0.030	1.00	2.00	0.045	0.030	20.00	1.00	10.50	1.00	-	0.1000
Results	0.025	0.43	1.64	0.040	0.020	18.06	0.32	8.04	0.38	0.10	0.0700
MECHANICAL PROPERTIES											
Specified Values	Test Method : EN ISO 6892-1					Hardness EN ISO 6506-1 (BHN)	Test Method : Charpy 'V' Notch Impact				
	Proof Strength N/mm ² /MPa		Tensile Strength N/mm ² /MPa (Rm)	Elongation after Fracture A %	Reduction of Area %		Tested (Zmm) as per DIN EN ISO 148 - 1				
	0.2% (Rp0.2)	1% (Rp1.0)					Sample Size - Test Temp. > 20 °C (Joules)				
Results	338	381	648	52	72	195-198	N.A.	N.A.	N.A.	N.A.	N.A.
Remarks:											
1. Smooth Turned and Polished											
2. Solution annealed at 1050 °C.											
3. PMI test done 100% & found Satisfactory.											
4. Material is free from radio-active contamination.											
5. Material is free from mercury contamination.											
6. Both ends Chamfered.											
7. Inter-Granular Corrosion Test as per ASTM A262 - 15 (Pr.E) satisfactory.											
8. No welding or weld repairs were performed on this material while in our possession.											
9. Micro structure reveals- equiaxed grains of Austenite & free from carbide Precipitation.											
10. Grain size - No. 6-7 of ASTM as per E112-96.											
11. Material is Ultrasonically Tested as per ASTM A388 & found satisfactory.											
12. The material hardness is in accordance with NACE MR 0175-2009 and NACE MR 0103-2012.											
13. The material Conforms to ASTM A276-15, ASTM A182/ A182M-15, ASME SA 182/ SA 182M-13, ASTM A479/ A479M-15, ASME SA479/ SA-479M-15, ASTM A193/ A193M-12b B8 - CL1, ASME SA193/ SA193M-13 B8 - CL1, ASTM A320/ A320M-11 B8 CL1, ASME SA320/ SA 320M-10 B8 CL1, AMS-QQ-S-763E COND A, AMS - 5639H, AMS - 5647H, EN 10088-3 : 2014 & DIN EN 10272-2008 Specification.											
14. Location of sample - Off centre, Direction - Longitudinal, Test Temp - Room Temp., Shape of Test Piece - Round.											
15. Marking details - Company Logo, Size, Grade & Heat No.											
16. The material is manufactured / melt in Chandan Steel Mill and is of Indian Origin.											
BUNDLE NO.: 75						COLOUR : RED					

It is hereby certified that the above results are true and correct in every details and are meeting the requirements of specification & purchase order.

B. S. RAUTELA
MANAGER - QUALITY ASSURANCE



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6R1.125
 DATE: MAY 04 2018

PO / BATCH NO.: 039779/5068498

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.125
 THICKNESS RECEIVED: 1.125
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	<u>AMS-QQ-A-200/8</u>
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	<u>Heat Lot # 201706499</u>
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____
DATE: <u>9-89 MAY 04 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR
SPECIFICATION: QQ-A-225/B OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6R(D,DDD)
DIA.

WHERE "D,DDD" = DIAMETER IN INCHES
EG. 5/8" ROUND BAR = M6061T6R0.625

RELEASED
R 2009-09-09
JAP

B	REFORMAT DWG. ADD B211& B221 SPEC (2N D6-1), REF PAR 08-020A	CP	09 07 13
A	NEW ISSUE	DS	01 06 08
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. B	
DRAWING NO. M6061T6R		SHEET 1 OF 1	
TITLE		SCALE	
6061-T6 ROUND BAR		NTS	
COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED NOT TO BE RELEASED OR DISCLOSED TO ANY OTHER PERSON WITHOUT APPROPRIATE AUTHORITY			



Can Do.

Service Center Metals

5850 Quality Way

Prince George, VA 23875

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS



OUR ORDER NUMBER	ITEM
921655	20

BILL TO	MANIFEST NUMBER	DIE NUMBER	DATE OF SHIPMENT	CERTIFICATION
Copper & Brass Sales, Inc.	333947	RD0006	5/26/2017	ASTM-B221-14 StencilCont
SHIP TO	CUSTOMER PO	ALLOY / TEMPER	SALESPERSON	SPECIFICATION
Copper & Brass Sales, Inc	5400353007	6061-T6511	Ellis Williams	AMS-QQA-200/8 Rev-A
Quantity Certified	CUSTOMER PART NUMBER	DESCRIPTION		SPECIFICATION
4,040 lbs 288 pcs	ALRD00329	Lightning Rod Tite 1.125 + .005/- .004		RoHS 2011/65/EU Compliant

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6. This product is RoHS-2, REACH, and DfARS compliant.

Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
12	201706499	4/24/17	min 49.90 max 52.70	min 47.30 max 49.90	min 11.40 max 14.80
11	201707341	5/10/17	46.80	48.20	43.10 44.90 18.90 21.30

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	AL	Others		Melt Source:
												Each	Total	
001E170505A	201707341	6061	0.75	0.39	0.33	0.10	0.90	0.10	0.06	0.03	97.34	0.05	0.15	United States of America
001J170415D	201707341	6061	0.72	0.37	0.32	0.09	0.88	0.10	0.08	0.03	97.40	0.05	0.15	United States of America
03191704	201706499	6061	0.76	0.40	0.35	0.11	0.86	0.08	0.09	0.02	97.33	0.05	0.15	United States of America
04271704	201707341	6061	0.73	0.37	0.30	0.10	0.87	0.08	0.06	0.03	97.46	0.05	0.15	United States of America

SCM products are melted and extruded in the USA

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 5/26/2017

Rev 9/8/16